



## Climate change and air quality: The potential impact on health

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**Year:** 2011  
**Journal:** Asia-Pacific Journal of Public Health / Asia-Pacific Academic Consortium for Public Health. 23 (2 Suppl): 37S-45

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### Abstract:

The objectives of the study were to: consider the potential health impacts in Australia and the region arising from changes in air quality occurring as a result of climate change, identify vulnerable groups and potential adaptation measures and discuss the implications for policy. The authors provide an overview of international and national information on the potential health impacts of air pollutants that would most likely be affected by climate change and a discussion of the policy implications. Climate change is likely to have an impact on levels of ozone and possibly particulates, both of which are associated with increased mortality and a range of respiratory and cardiovascular health effects. One of the implications is therefore a possible increase in adverse health effects due to air pollutants. Regional health impact assessments of climate change should address the issue of air quality, consider current coping capacity, and determine the need for adaptation, particularly for vulnerable groups. Implications for policy include the need for improved modeling and forecasting of air pollutant levels, increased efforts to reduce emissions of air pollutants, continued monitoring of air pollutant levels, and monitoring of the incidence of health effects associated with air pollutants in all countries in the region.

**Source:** <http://dx.doi.org/10.1177/1010539511398114>

### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Extreme Weather Event, Temperature

**Air Pollution:** Allergens, Interaction with Temperature, Ozone, Particulate Matter

**Extreme Weather Event:** Wildfires

**Temperature:** Extreme Heat

#### Geographic Feature:

resource focuses on specific type of geography

Rural, Urban

#### Geographic Location:

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resource focuses on specific location

Non-United States

**Non-United States:** Australasia

**Health Co-Benefit/Co-Harm (Adaption/Mitigation):** 

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

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**Health Impact:** 

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Morbidity/Mortality, Respiratory Effect

**Cardiovascular Effect:** Heart Attack, Other Cardiovascular Effect

**Cardiovascular Disease (other):** cardiovascular mortality

**Respiratory Effect:** Asthma, Upper Respiratory Allergy, Other Respiratory Effect

**Respiratory Condition (other) :** respiratory mortality

**Intervention:** 

strategy to prepare for or reduce the impact of climate change on health

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**Mitigation/Adaptation:** 

mitigation or adaptation strategy is a focus of resource

Adaptation

**Population of Concern:** A focus of content

**Population of Concern:** 

populations at particular risk or vulnerability to climate change impacts

Children, Elderly, Racial/Ethnic Subgroup

**Other Racial/Ethnic Subgroup:** Australian Indigenous subpopulation

**Other Vulnerable Population:** people with chronic disease

**Resource Type:** 

format or standard characteristic of resource

Review

**Resilience:** 

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

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### **Timescale:**

time period studied

Time Scale Unspecified

### **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

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